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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AL, AU, BA, BR, CA, CN, CO, CU, DZ, EC, GE, HR, ID, IL, IN, IS, JP, KR, LT, LV, MA, MK, MX, NO, NZ, PH, PL, SG, TN, UA, VN, YU, ZA, ZW, Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

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WO 03/075926 A1

(54) Title: USE OF PROTON PUMP INHIBITORS FOR THE TREATMENT OF AIRWAY DISORDERS

(57) Abstract: The invention relates to the use of proton pump inhibitors in the treatment of airway disorders.

INTERNATIONAL SEARCH REPORT

International Application No.

T/EP 03/02467

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/454 A61P11/00 A61P11/06 A61P11/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BIOSIS, PAJ, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01 97753 A (EISAI CO LTD ;NIECESTRO ROBERT M (US)) 27 December 2001 (2001-12-27) page 6, line 20 -page 7, line 2 page 7, line 24 -page 8, line 2 page 17, line 8 - line 13 ---	1-7,9
X	WO 98 16228 A (PINAS MASSO JOAN ;SERRA CARRERAS JORDI (ES); TROFAST JAN (SE); AST) 23 April 1998 (1998-04-23) page 2, line 4 - line 9 page 7, line 25 - line 29 claims 2,10 --- -/--	1-9

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

13 May 2003

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23/05/2003

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INTERNATIONAL SEARCH REPORT

International Application No.

T/EP 03/02467

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 50037 A (GARVEY DAVID S ;LETTS L GORDON (US); NITROMED INC (US); WANG TIANS) 31 August 2000 (2000-08-31) page 1, line 21 page 5, line 27 claim 15 page 3, line 19 - line 24 ----	1-8
X	US 6 159 968 A (CUPPOLETTI JOHN) 12 December 2000 (2000-12-12) column 1, line 60 -column 2, line 1 column 4, line 50 - line 52 column 14, line 1 - line 6 ----	1-9
X	DATABASE WPI Section Ch, Week 199812 Derwent Publications Ltd., London, GB; Class B05, AN 1998-123381 XP002210184 & IT 1 271 434 B (BARTEL DUE SRL), 28 May 1997 (1997-05-28) abstract ----	1-7,9
X	ISRAEL D M ET AL: "OMEPRAZOLE AND OTHER PROTON PUMP INHIBITORS: PHARMACOLOGY, EFFICACY AND SAFETY, WITH SPECIAL REFERENCE TO USE IN CHILDREN" JOURNAL OF PEDIATRIC GASTROENTEROLOGY AND NUTRITION, RAVEN PRESS, NEW YORK, NY, US, vol. 5, no. 27, November 1998 (1998-11), pages 568-579, XP008002262 ISSN: 0277-2116 page 575, column 2, paragraph 2 page 575, column 2, paragraph 5 page 576, column 1, paragraph 1 ----	1-7,9
X	MEIER JOHN H ET AL: "Does omeprazole (Prilosec) improve respiratory function in asthmatics with gastroesophageal reflux? A double-blind, placebo-controlled crossover study." DIGESTIVE DISEASES AND SCIENCES, vol. 39, no. 10, 1994, pages 2127-2133, XP001096012 ISSN: 0163-2116 page 2132, paragraph "Conclusions" -----	1-7,9

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP 03/02467

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 1-3, 7-9 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: 1-6, 9 (partially)
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-6,9 (partially)

Present claims 1-6 and 9 relate to a product defined by reference to a desirable characteristic or property, namely proton pump inhibition. The claims cover all products having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such products. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the product by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the proton pump inhibitors listed individually on pages 1 and 2 of the description.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/02467

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